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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,746

09/30/2003

Brian KwangShik Hong

8008

33376 7590
KENNETH L. TOLAR
2908 Hessmer Avenue
Metairie, LA 70002

08/21/2007

EXAMINER

WONG, ALLEN C

ART UNIT

PAPER NUMBER

2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/675,746	Applicant(s) HONG ET AL.	
	Examiner Allen Wong	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

New claims 6-13 are rejected as discussed below in the rejection.

1. Applicant's arguments filed 6/8/07 have been fully read and considered but they are not persuasive.
2. Regarding lines 14-20 on page 4 of applicant's remarks, applicant states that there is no prima facie case established. The examiner respectfully disagrees. In response to applicant's arguments the claimed invention must be considered as a whole, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).
3. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does

not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that reasonable expectation of success is the standard with which obviousness is determined, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Chun, as a whole, for conveniently, efficiently monitor multiple camera images simultaneously in surveillance applications, as disclosed in Chun's column 1, lines 52-57.

Regarding lines 12-13 on page 5 of applicant remarks, applicant states that Lee does not disclose the microprocessor continuously transmitting images to each corresponding display unit. In figure 5, Lee discloses that element 60 and 68 function to process the images obtained by the cameras 62, 64 and 66, in that the images can be continuously processed as needed by the user for displaying images to element 74.

Lee does not specifically disclose a pair of video displays mounted within said passenger compartment, and positioned therein to be readily visible by a driver, each video display in selective communication with a designated camera. However, the use of multiple displays to display camera images from multiple cameras is well known in the art. In column 5, line 66 to column 6, line 2, Lee discloses that displaying multiple views from at least two cameras can be incorporated as picture in picture or a split screen for simultaneous display. In figure 3, Chun discloses the monitor 25 showing multiple displays used to display images obtained from multiple cameras in element 1 of figure 1, wherein each of the cameras are designated by channel to monitor each designated monitored area. Thus, Chun teaches the use of multiple displays for displaying multiple views from at least two cameras, each video display in selective communication with a designated camera. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Chun, as a whole, for conveniently, efficiently monitor multiple camera images simultaneously in surveillance applications, as suggested in Chun's column 1, lines 52-57.

Regarding line 15 on page 5 to line 7 on page 6 of applicant's remarks, applicant asserts that Chun is not combinable with Lee and that Chun teaches away from the

present invention. The examiner respectfully disagrees. Chun does teach the use of multiple displays for displaying multiple images, and the applicant's present invention also uses multiple displays. There is nothing novel about using multiple displays for displaying multiple images in a motor vehicle unless the applicant actually believes that using multiple displays is a patentable feature. To one of ordinary skill in the art, it would have been obvious to use two, three, four or more displays for displaying multiple images on split screens or on multiple screens for the purpose of providing the display or viewing of the plurality of images for monitoring the vicinity of a moving vehicle from many perspectives in order to conveniently, efficiently monitor multiple camera images simultaneously in surveillance applications.

Regarding lines 15-16 on page 6 of applicant's remarks, applicant states that Chun is non-analogous art. The examiner respectfully disagrees. In response to applicant's argument that Chun is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

In fact, Lee and Chun are in the same ambience of image analysis and image processing. The argument that Chun is non-analogous art is not accurate. In response to applicant's argument that reasonable expectation of success is the standard with which obviousness is determined, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary

reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Chun, as a whole, for conveniently, efficiently monitor multiple camera images simultaneously in surveillance applications, as disclosed in Chun's column 1, lines 52-57.

Regarding lines 14-16 on page 7 of applicant's remarks, applicant asserts that there are no explanations to previously claims 3-5. The examiner respectfully disagrees. Previous claim 3 recites a warning means for alerting the driver of approaching vehicles, in which Tsuchiya discloses. In figure 1, Tsuchiya discloses the element 100 is a vehicle detection means that utilizes the image information from cameras 11a and 11b, speed sensor 4, and other photoelectric sensors for detecting the approaching vehicle, wherein sensors are utilized for determining if the approaching vehicle is at a safe distance or range. Thus, Tsuchiya discloses the "warning means". Previous claim 4 recites the warning comprises a phototransistor and audible alarm

means. Since Tsuchiya provides the warning means, it would have been obvious to one of ordinary skill in the art to apply audible alarm means for performing the task of alarming or providing a sound warning the driver of approaching vehicles so as to avoid potentially colliding with the approaching vehicles and preventing accidents.

In regards to claim 5, Lee discloses the turn signal control switch element 42 in figure 3. Lee and Chun do not specifically disclose wherein said vehicle includes a turn signal switch means electrically connected to said microprocessor means for exclusively activating said audible alarm means if said trailing vehicle is within the predetermined range of said vehicle. In figure 1, Tsuchiya discloses the element 100 is a vehicle detection means that utilizes the image information from cameras 11a and 11b, speed sensor 4, and other photoelectric sensors for detecting the approaching vehicle, wherein sensors are utilized for determining if the approaching vehicle is at a safe distance or range. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lee, Chun and Tsuchiya, as a whole, for providing the driver pertinent information about approaching vehicles so as to drive at a safe distance and to prevent the occurrence of accidents, as suggested in Tsuchiya's column 1, lines 47-54.

Thus, the rejection is maintained.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2621

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (5,680,123) in view of Chun (5,956,094).

Regarding claim 6, Lee discloses a peripheral viewing system for a vehicle wherein said vehicle includes two opposing sides, a steering wheel positioned within a passenger compartment and a rear, the viewing system comprising:

a pair of cameras, one of said cameras mounted on one of said sides of the vehicle, another of said cameras mounted on another of said sides of the vehicle (fig.4, note element 16 is a camera mounted on the right side of the vehicle and element 12 is a camera mounted on the left side of the vehicle);

a video display mounted within said passenger compartment, and positioned therein to be readily visible by a driver, where the video display is in selective communication with a designated camera (fig.3, element 30 and fig.5, element 74);

a microprocessor means in communication with each of said cameras and said displays for continuously processing images received from each of said cameras and for continuously transmitting said images to the display (fig.5, element 60 and 68 function to process the images obtained by the cameras 62, 64 and 66, in that the images can be continuously processed as needed by the user for displaying images to element 74).

Lee does not specifically disclose a pair of video displays mounted within said passenger compartment, and positioned therein to be readily visible by a driver, each

video display in selective communication with a designated camera. However, the use of multiple displays to display camera images from multiple cameras is well known in the art. Lee discloses that displaying multiple views from at least two cameras can be incorporated as picture in picture or a split screen for simultaneous display (col.5, ln.66 to col.6, ln.2). Chun teaches the use of multiple displays for displaying multiple views from at least two cameras, each video display in selective communication with a designated camera (fig.3, Chun discloses monitor 25 shows multiple displays used to display images obtained from multiple cameras in element 1 of fig.1, where each of the cameras are designated by channel to monitor each designated monitored area). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Chun, as a whole, for conveniently, efficiently monitor multiple camera images simultaneously in surveillance applications (Chun col.1, ln.52-57).

Regarding claim 7, Lee discloses a third camera is located in vehicle's rear (fig.4, element 14). Lee does not specifically disclose the third video display. However, the use of multiple displays to display camera images from multiple cameras is well known in the art. Lee discloses that displaying multiple views from at least two cameras can be incorporated as picture in picture or a split screen for simultaneous display (col.5, ln.66 to col.6, ln.2). Chun teaches the use of multiple displays for displaying multiple views from at least two cameras, each video display in selective communication with a designated camera (fig.3, Chun discloses monitor 25 shows multiple displays used to display images obtained from multiple cameras in element 1 of fig.1, where each of the cameras are designated by channel to monitor each designated monitored area).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Chun, as a whole, for conveniently, efficiently monitor multiple camera images simultaneously in surveillance applications (Chun col.1, ln.52-57).

Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (5,680,123) and Chun (5,956,094) in view of Tsuchiya (5,530,420).

Regarding claim 8, Lee discloses the use of an alarm (fig.5, element 54). Lee and Chun do not specifically disclose the warning means for alerting a driver of an approaching vehicle. However, Tsuchiya teaches the use of a vehicle detection means for alerting a driver of an approaching vehicle (fig.1, element 100 is an vehicle detection means that utilizes the image information from cameras 11a and 11b, speed sensor 4, and other photoelectric sensors for detecting the approaching vehicle, wherein sensors are utilized for determining if the approaching vehicle is at a safe distance or range). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lee, Chun and Tsuchiya, as a whole, for providing the driver pertinent information about approaching vehicles so as to drive at a safe distance and to prevent the occurrence of accidents (Tsuchiya col.1, ln.47-54).

Regarding claim 9, Lee and Chun do not specifically disclose the warning means comprising phototransistor and audible alarm means. However, Tsuchiya teaches the use of a vehicle detection means for alerting a driver of an approaching vehicle (fig.1, element 100 is an vehicle detection means that utilizes the image information from cameras 11a and 11b, speed sensor 4, and other photoelectric sensors for detecting the approaching vehicle, wherein sensors are utilized for determining if the approaching

vehicle is at a safe distance or range). Since Tsuchiya provides the warning means, it would have been obvious to one of ordinary skill in the art to apply audible alarm means for performing the task of alarming or providing a sound warning the driver of approaching vehicles so as to avoid potentially colliding with the approaching vehicles and preventing accidents. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lee, Chun and Tsuchiya, as a whole, for providing the driver pertinent information about approaching vehicles so as to drive at a safe distance and to prevent the occurrence of accidents (Tsuchiya col.1, ln.47-54).

Regarding claim 10, Lee discloses the turn signal control switch (fig.3, element 42). Lee and Chun do not specifically disclose wherein said vehicle includes a turn signal switch means electrically connected to said microprocessor means for exclusively activating said audible alarm means if said trailing vehicle is within the predetermined range of said vehicle. However, Tsuchiya teaches the use of a vehicle detection means for alerting a driver of an approaching vehicle (fig.1, element 100 is an vehicle detection means that utilizes the image information from cameras 11a and 11b, speed sensor 4, and other photoelectric sensors for detecting the approaching vehicle, wherein sensors are utilized for determining if the approaching vehicle is at a safe distance or range). Since Tsuchiya provides the warning means, it would have been obvious to one of ordinary skill in the art to apply audible alarm means for performing the task of alarming or providing a sound warning the driver of approaching vehicles so as to avoid potentially colliding with the approaching vehicles and preventing accidents. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of

Lee, Chun and Tsuchiya, as a whole, for providing the driver pertinent information about approaching vehicles so as to drive at a safe distance and to prevent the occurrence of accidents (Tsuchiya col.1, ln.47-54).

Regarding claim 11, it would have been obvious to one of ordinary skill in the art to encase cameras in any form as needed or suited by design choice since encasing cameras into aerodynamic, protective cases is a well known practice for shielding cameras and providing sensible forms of concealing cameras so as to not slow down the speed of the vehicle.

Regarding claim 12, it would have been obvious to one of ordinary skill in the art to place the displays in any location as seen fit by the user or creator for conveniently viewing the displayed information so as to drive carefully with all of the necessary, precise video information of the perspectives obtained by the cameras in order to prevent accidents.

Regarding 13, Lee discloses a third camera placed in the rear of the vehicle (fig.1A-B, element 14 is the third camera). It would have been obvious to one of ordinary skill in the art to position Lee's camera immediately adjacent a top edge or bottom edge of a rear window on the vehicle so as to simulate a rear view of the scene in order to ascertain a clear perspective of the vehicle's rear while driving for avoiding other vehicles and preventing accidents.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

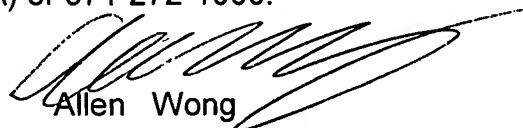
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Art Unit: 2621

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Allen Wong', is written over the printed name.

Allen Wong
Primary Examiner
Art Unit 2621

AW

8/16/07